

Remarks/Arguments

Claims 1-15 are pending in this application and will continue to be pending after entry of this response. No claims have been amended herein. No fee is due at this time.

The Examiner has rejected claims 1, 10, and 13 under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. The Examiner seems to suggest that the terms and/or phrases mentioned in a specific claim recitation are not discussed in Applicant's specification. More specifically, the Examiner suggests that if the phrases, "without demodulating the DTV signal" and "correlation subsystem" are not both used in the same paragraph (paragraph [0018]), the written description requirement of Section 112 has not been met. Applicant knows of no case law, statute or regulation to that effect, and the Examiner has not cited any. Quite the contrary, the Examiner should review the entire application in determining whether there is support for the claimed invention. M.P.E.P. 2163(II)(A)(2). Additionally, the Examiner must present evidence or reasoning as to why persons skilled in the art would not recognize a description in the disclosure of the invention defined by the claim. M.P.E.P. 2163(II)(A)(3)(b).

The Examiner has requested that the Applicant point out where the correlation subsystem is discussed in the application. Applicant notes that since this application was filed electronically, the line numbers and pages of the undersigned attorney's copy bear no relationship to those of the Examiner's copy. However, being as specific as possible, a correlation subsystem is shown in Figures 2 and 4 and discussed with reference thereto. Additionally, the term "correlation subsystem" is specifically mentioned in the last sentence of paragraph [0006], the second sentence of paragraph [0008], paragraph [0010], paragraph [0012], the third and fourth sentences of paragraph [0020], the first sentence of paragraph [0023], and the next to the last sentence of paragraph [0026].

The Examiner continues to reject claims 1, 2, 4-7, 10, 11, 13, and 14 under 35 U.S.C. § 103(a) as obvious in view of U.S. Patent 6,717,547 to Spilker et al. ("Spilker") in combination with U.S. Patent 6,522,297 to Rabinowitz et al. ("Rabinowitz"). The Applicant reiterates his previous arguments. There are recitations in all of Applicant's independent claims, and thus in all of Applicant's claims through dependency, which are not fairly taught or suggested by Spilker and Rabinowitz. Applicant's claims 1, 10, and 13 all include a recitation of "a filter...shared in

common with both" a radio subsystem and either a ranging signal receiving subsystem or the means for receiving a DTV signal. The examiner has previously cited col. 14, lines 34-45 and elements 812A and B from the figures of Spilker, where an ordinary IF filter is shown. The ranging subsystem presented in Spilker that uses the IF filter to which the examiner refers uses GSM signals, not DTV signals. Spilker does not discuss or show any common components at all, much less a common, shared filter as claimed by Applicant connected to two subsystems. In fact, Spilker does not describe any details of the components that might be used for one of the subsystems, namely the DTV subsystem. The detailed block diagram of Fig. 8, on which the Examiner repeatedly relies, shows only a system that receives ordinary GSM telephone signals and ranges using only these GSM signals. Spilker may mention that the mobile terminal can include DTV capability, but this capability is not described or shown in detail anywhere in Spilker, much less in Fig. 8, and there is no discussion of using common components for this capability.

In addition to the recitation discussed above, Applicant's independent claims 1, 10, and 13 all recite "correlating the DTV signal with a known sequence that has been predistorted." The Examiner points to specific discussions in Rabinowitz as disclosing this recitation of Applicant's claims, citing: col. 6, lines 43-52; col. 11, lines 10-24 and lines 49-53; col. 11, line 58 - col. 12, line 9; col. 12, line 60 - col. 13, line 3; col. 14, lines 13-34; and Figures 4, 13, and 15 of Rabinowitz. Applicant has examined these sections of Rabinowitz and can find no mention of predistortion or the use of a predistorted sequence as recited in Applicant's claims. Thus, this recitation, which is in all of Applicant's claims either directly, or through dependence, is also missing from, and not suggested by the cited art, alone or in combination. Applicant's claims are patentable over Spilker and Rabinowitz for this additional reason.

All of the art cited by the examiner shows or suggests devices or apparatus in which telecommunication signaling function and ranging signal reception are carried out by separate subsystems within a device. The very disparate bandwidth requirement of the two types of signals being used in the device as disclosed and claimed by Applicant makes filter design difficult. Thus the use of a shared-in-common filter as disclosed and claimed by Applicant is not suggested by the art, even combined. Applicant has arrived at an elegant solution to this problem, namely, the use of a pre-distorted sequence. The Examiner has failed in his burden to

show that the art combined suggests to one of ordinary skill in the art a shared filter which makes use of a pre-distorted sequence to compensate for the fact that such a filter would not be of the proper bandwidth for a DTV signal.

Spilker and Rabinowitz are also not properly combinable in this instance. Taking the filter disclosed in Rabinowitz or Spilker and making it a common filter without making further modifications would not work. The Spilker filter is too narrow for a DTV signal. Likewise, the filter of Rabinowitz does not have the proper bandwidth for GSM signals. Thus the combination would render one reference or the other unsatisfactory for its intended purpose, meaning by definition, that there is no motivation or suggestion for the combination. MPEP § 2143.01

Since the independent claims are patentable over Spilker and Rabinowitz, then the claims that depend from them are patentable for at least those same reasons. However, neither Spilker nor Rabinowitz discuss or show any components such as a mixer or amplifier are shared between two receiving subsystems. Thus, the combination of these references cannot show such components. Therefore, claims 4-7 are patentable for at least this additional reason.


The Examiner continues to reject claims 3, 8-9, 12, and 15 as obvious under 35 U.S.C. § 103(a) in view of Spilker in combination with Rabinowitz, further in combination with U.S. published patent application 2002/0144294. Again, claims 8 and 9 each recite a shared mixer or a shared mixer in combination with a shared amplifier. None of these three references discusses or shows any such components that are shared between two receiving subsystems. Thus, the combination of these references cannot show such components.

Applicant believes he has responded to all of the concerns raised by the Examiner. Reconsideration of this application as amended is hereby requested. If the Examiner has any questions about the present response, a telephone interview is requested.

Respectfully submitted,

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Telephone: (919) 286-8000
Facsimile: (919) 286-8199



Steven B. Phillips,
Registration No. 37,911
Moore & Van Allen, PLLC
P.O. Box 13706
Research Triangle Park, NC 27709